

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-27 (cancelled)

Claim 28 (new) A method of BEMF measurement, comprising the steps of:

- (a) turning off a driver for a current in a first direction through a voice coil;
- (b) after said turning off, estimating eddy currents induced by current in said first direction through said voice coil prior to said turning off;
- (c) for a time interval, turning on a driver for a current in a second direction through said voice coil, where said second direction is opposite said first direction and said time interval is determined from the results of said estimating;
- (d) after said time interval, measuring a BEMF of said voice coil.

Claim 29 (new) The method of claim 28, wherein said estimating eddy currents is by timing a decay of flyback current through said voice coil following said turning off in step (a) of claim 28.

Claim 30 (new) The method of claim 29, wherein said timing a decay includes measuring a voltage drop across a sense resistor in series with said voice coil.

Claim 31 (new) The method of claim 28, wherein said turning off of step (a) of claim 28 includes turning off a first pair of transistors in an H-bridge connected to said voice coil and between a power supply and a power sink, and wherein said turning on of step (c) of claim 28 includes turning on a second pair of transistors of said H-bridge.

Claim 32 (new) A voice coil circuit, comprising:

- (a) a current driver for a voice coil;
- (b) a positioning control circuit coupled to said current driver;
- (c) an estimator control circuit coupled to said current driver circuit and to said positioning control circuit; and
- (d) a BEMF measuring circuit coupled to said current driver;
- (e) wherein said estimator control circuit is operable to:
 - (i) be enabled by said positioning circuit releasing control of said current driver;
 - (ii) determine a time interval; and
 - (iii) control said current driver to drive a current through said voice coil during said time interval and in a direction opposite to direction of current through said voice coil just prior to said positioning circuit releasing control of said current driver.

Claim 33 (new) The circuit of claim 32, wherein said estimator control circuit determines said time interval by timing decay of a flyback current after said positioning control circuit releasing control of said current driver.

Claim 34 (new) The circuit of claim 32, wherein said current driver includes an H-bridge with said voice coil and a current sense resistor connected between legs of said H-bridge and a power supply and a power sink connected to ends of respective legs of said H-bridge, and each leg includes a transistor plus a flyback diode.

Claim 35 (new) A hard disk drive, comprising:

- (1) at least one disk with a magnetic film coating;
- (2) a read/write head assembly with a voice coil for positioning over said disk;
- (3) a voice coil circuit connected to said voice coil, including:
 - (a) a current driver for said voice coil;
 - (b) a positioning control circuit coupled to said current driver;

(c) an estimator control circuit coupled to said current driver circuit and to said positioning control circuit; and

(d) a BEMF measuring circuit coupled to said current driver;

(e) wherein said estimator control circuit is operable to:

(i) be enabled by said positioning circuit releasing control of said current driver;

(ii) determine a time interval; and

(iii) control said current driver to drive a current through said voice coil during said time interval and in a direction opposite to direction of current through said voice coil just prior to said positioning circuit releasing control of said current driver.

Claim 36 (new) The hard disk drive of claim 35, wherein said estimator control circuit determines said time interval by timing decay of a flyback current after said positioning control circuit releasing control of said current driver.

Claim 37 (new) The hard disk drive of claim 35, wherein said current driver includes an H-bridge with said voice coil and a current sense resistor connected between legs of said H-bridge and a power supply and a power sink connected to ends of respective legs of said H-bridge, and each leg includes a transistor plus a flyback diode.